REMARKS

The Office action has been carefully considered. In the Office action, the Abstract was objected to, and claims 1-23 were rejected under 35 U.S.C. § 103(a) as being anticipated by Chaiken, U.S. Patent No. 6,055,643 (hereinafter "Chaiken").

By the present amendment, the Abstract has been amended so as not to exceed the 150 word limit and claims 24-37 have been added. Further, claims 11 and 12 have been canceled as duplicative, and not in view of the prior art, and claims 1, 7, 13 and 20 have been amended to more particularly point out and claim the subject matter of the invention and not for reasons related to patentability. Applicants submit that the claims as presented have been and continue to be patentable over the prior art of record. Reconsideration is respectfully requested.

Turning to the 35 U.S.C. § 103(a) rejections, the present invention generally relates to intelligent power management in computer-related devices. In an aspect of the invention, the present invention provides a method and system that solves the problem of interrupt storms by selectively enabling and/or re-enabling wake GPEs (General Purpose Events) received in a hardware register, such that a method associated with that wake event only runs when the software decides that it can run. The operating system thus intelligently manages wake GPEs, so that if a hardware device fails to properly clear a wake signal, the computer system does not again process that wake signal, by running and re-running its associated method, essentially in an infinite loop. As part of this operation, the operating system may distinguish between events that are exclusively wake events versus events that are shared run-time and wake events.

In one implementation, at boot time, the ACPI driver uses an algorithm to examine the system tables / namespace (built from firmware information) to determine which GPEs are associated with wake events, either exclusively or shared with run-time events. The GPEs associated with wake events are managed differently from the GPEs received on other pins (which are managed according to the ACPI specification).

In general, after the operating system has determined which GPEs are run-time, wake only, or shared, when the operating system receives events in the GPE Status register for an enabled event, the operating system runs a method associated with that GPE. When the associated method has completed, the operating system selectively determines whether the event needs to be re-enabled. This is done (in part) by determining if the event is wake only, (e.g., via access and manipulation of the state information in the registers), and if there is no outstanding request for that event to wake up the computer. By selectively not re-enabling certain events, the operating system does not again process events that are not properly cleared by their corresponding hardware.

Note that the above description is for informational and example purposes only, and should not be used to interpret the claims, which are discussed below.

In contrast to the present invention, Chaiken is directed towards solving an entirely different problem from that solved by the present invention, essentially simulating events to allow non-dedicated event signals (e.g., legacy IRQs) to wake a computer system that uses operating system-directed power management. To this end, Chaiken provides a system management interrupt handler (external to the operating system) to convert a non-dedicated event signal into a virtual power management event. Chaiken, column 8, lines 11-35. In other words, Chaiken causes a bit to change in the event register to thereby wake the

computer system, by simulating what a hardware device would do if the hardware device was configured to write to the event register, for situations in which the hardware device cannot do so on its own. Note that just like an improperly built hardware device, if Chaiken failed to clear this event, an interrupt storm would occur and fail to properly wake the computer (absent the present invention).

Regarding the 35 U.S.C. § 103(a) rejections, by law, in order to establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In addition, "all words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Chaiken clearly fails these requirements with respect to the claims.

Turning to the rejection of independent claims 1, 13, and 20 of the present invention, each of these claims generally recites the selective enabling and/or selective re-enabling of the wake events, which essentially allows software to intelligently control whether the method associated with a wake event will be run. Note that the Office action essentially contends that claims 13 and 20 are simply apparatus and data structure claims that perform the method steps of claim 1; applicants disagree, and submit that each of the claims should be examined on its own merits. Notwithstanding, because Chaiken is so seriously deficient with respect to at least this recited subject matter, applicants will not separately point out the many other aspects of the claims that differ from Chaiken's teachings.

In contrast to the claims, Chaiken is entirely silent as to the concept of selective enabling and/or selective re-enabling of the wake events. In fact, the Office action

expressly concedes that "Chaiken does not explicitly teach each wake event from the plurality of events is selectively enabling." Office action, sec. 5, pg. 3. Nevertheless, the Office action alleges that "(o)ne of ordinary skill in the art would have readily recognized that the enabling of wake event could be selectable in the case a plurality of wake events occur." Office action, sec. 5, pg. 3. Such broad, conclusory statements do not come close to adequately addressing the issue of motivation to combine, are not evidence of obviousness, and therefore are improper as a matter of law. *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Applicants thus strongly disagree with this unsupported conclusion, and specifically request that any claim rejections based on this statement be withdrawn, or submit that a reference or references in support must be provided, including a motivation to combine such a reference with Chaikan in a manner that would reach the claimed subject matter. See M.P.E.P. § 2144.03.

Moreover, the Office action does not provide any alleged motivation for modifying Chaikan in some way that would reach the claims, let alone provide any indication as to how such a modification might be accomplished, or why it might be desirable to do so. Instead, the Office action has merely repeated applicants' claim language, which is based solely on applicants' teachings, to contend that the claims are obvious, without providing any reasoning or other support.

It is well settled that in order to avoid an impermissible hindsight reconstruction of a claimed invention based on the applicants' teachings, to support a § 103(a) rejection, there must be some teaching, suggestion, or motivation other than applicants' teachings for modifying a cited reference (or combining references) to achieve the claimed invention. The prior art of record including Chaiken is entirely silent as to any such a modification, as

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is the Office action, and thus it is fully evident that the Office action could only have

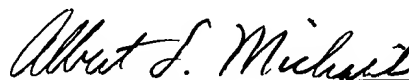modified Chaiken based on applicants' teachings, which is impermissible by law.

Applicant also submits that the newly added claims 24-37 are also directed towards

subject matter that is not taught in the prior art of record. For example, the new claims

generally recite selected re-enablement and/or identifying a wake event shared with a run-

time event. The subject matter of these claims is not disclosed or suggested in the prior art

of record. As such the new claims 24-37 are each patentable over the prior art of record.

CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-10 and

13-37 are patentable over the prior art of record. Applicants also respectfully submit and

that the application is in good and proper form for allowance. A favorable action on the

part of the Examiner is earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the

prosecution of the subject application, the Examiner is invited to call the undersigned

attorney at (425) 836-3030.

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Respectfully submitted,

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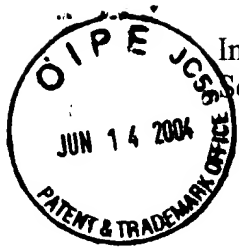
CERTIFICATE OF MAILING

I hereby certify that this Amendment and Petition for Extension of Time, along with

Transmittal are being deposited with the United States Postal Service on the date shown

below with sufficient postage as First Class Mail in an envelope addressed to: Assistant

Commissioner for Patents, Alexandria, VA 22313-1450

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Technology Center 2100

Date: June 10, 2004   _Albert S. Michalik_

                                             Albert S. Michalik

2410 Amendment